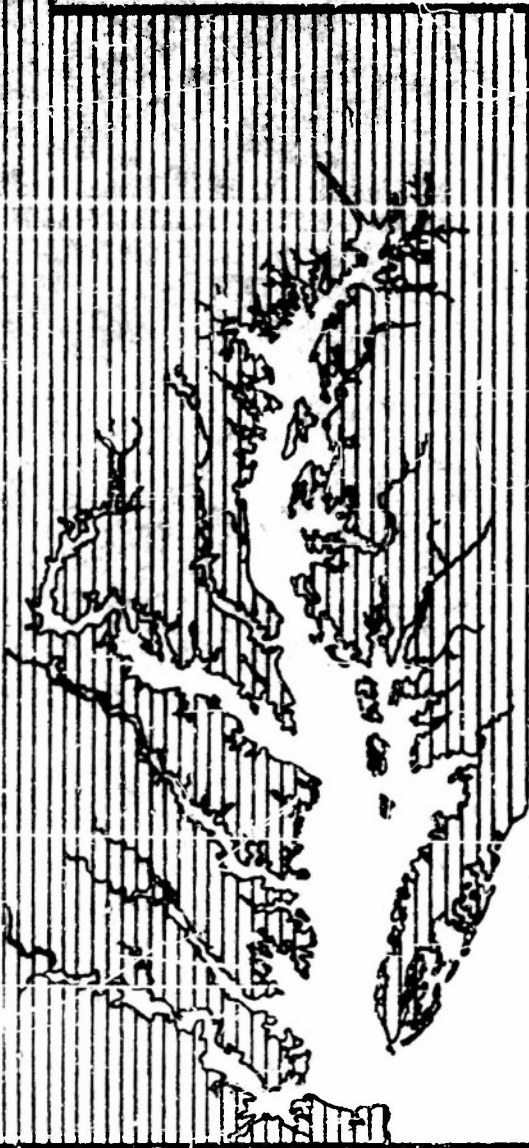


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THE CHESAPEAKE BAY INSTITUTE of The Johns Hopkins University



DATA REPORT 17

CHOPTANK RIVER SPRING CRUISE

28 April - 1 May 1952

January 1954
Reference 54-1

CHESAPEAKE BAY INSTITUTE
THE JOHNS HOPKINS UNIVERSITY

DATA REPORT 17

CHOPTANK RIVER-SPRING CRUISE
28 April - 1 May 1952

This report contains results of work carried out for: the Office of Naval Research of the Navy Department under research project NR 083-016, Contract Nonr 248(20), and research project NR 083-070, Contract Nonr 248(30); the State of Maryland (Department of Research and Education); and the Commonwealth of Virginia (Virginia Fisheries Laboratory).

January 1954
Reference 54-1

D. W. Pritchard
Director

The data presented in this report were collected in the Choptank River during the period 28 April to 1 May 1952.

The purpose of this cruise was to study the physical and chemical structure of the area in the spring season.

The presentation of data in this report does not constitute publication and the information may be subject to modification at a later date.

Location of Stations

An arbitrary line designating the mouth of the river was chosen from red nun buoy 16FF off James Island to black spar 3 off Sharps Island. The stations were chosen upstream from this line in the deepest part of the channel. The station designators consist of the letters CK followed by the numerals representing the number of nautical miles to the nearest mile upstream from the mouth. Thus CK-30 is the station 30 nautical miles upstream from the line designating the mouth of the river.

Observations

Current speed and direction were measured with the confined submerged drags described in Chesapeake Bay Institute Technical Report No. 1.

Temperature and salinity were determined by means of the Conductivity-Temperature-Indicator (CTI). (See Data Report 13, reference 53-4.)

Oxygen was determined by the modified Winkler titration method.

pH was determined with a Beckman pH meter.

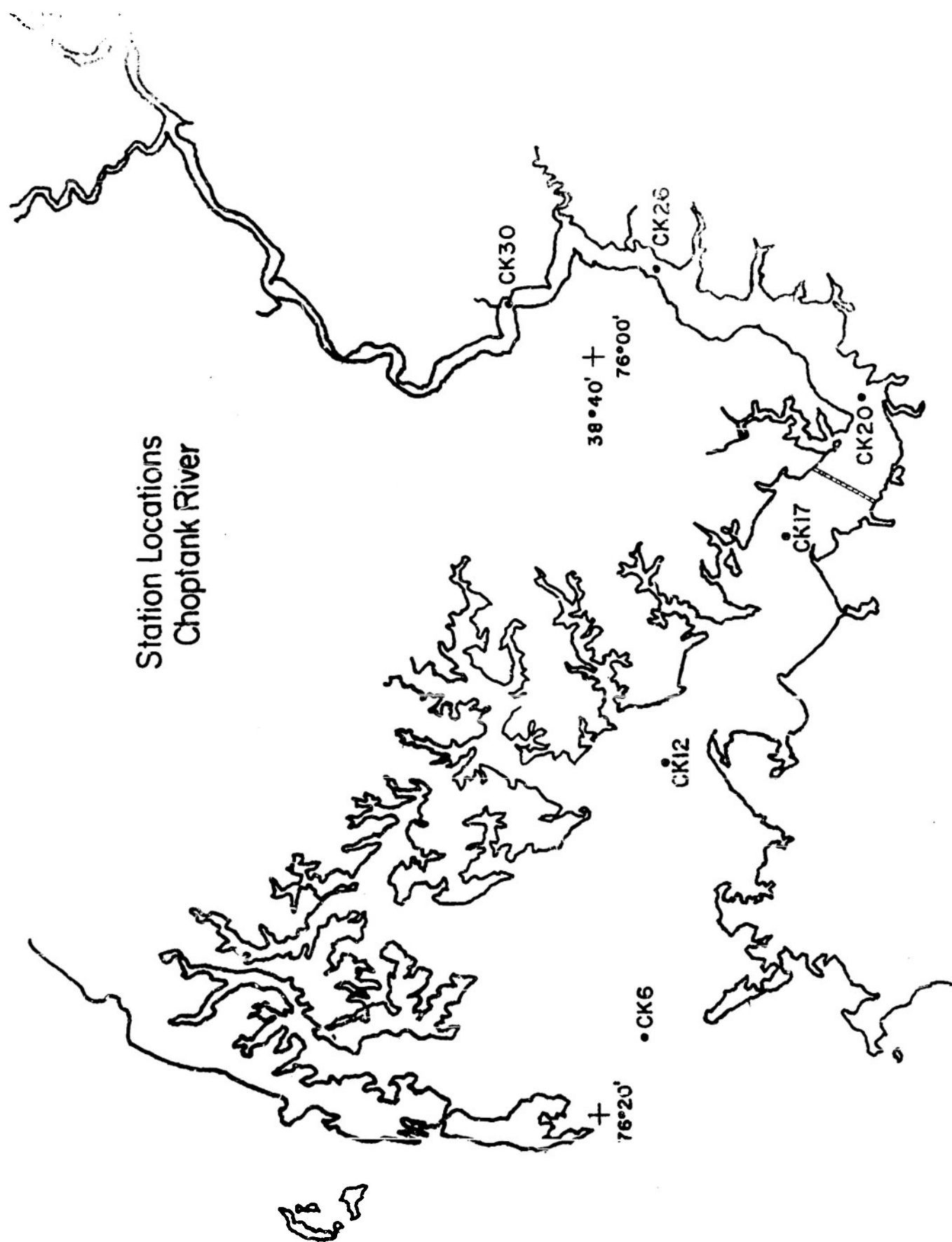
Turbidity, inorganic phosphate, and chlorophyll were determined by the methods outlined in Data Report 12, reference 52-21.

Alkalinity was determined by the method found in Industrial and Engineering Chemistry, Analytical Edition, Volume 18, No 12, 1946.

Weather is reported in U. S. Weather Bureau code.

Wind force is given in Beaufort scale units.

Station Locations
Choptank River



Section A
Salinity, Temperature, Current, and Meteorological Data

CK-6 28 Apr 52		0900 EST Depth -	Weather - Wind - Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.63	9.18	--	--
5	13.62	9.19	--	--
10	13.59	9.22	--	--
15	13.47	9.29	--	--
20	12.26	10.96	--	--
25	11.72	11.93	--	--
30	11.44	12.58	--	--
35	11.17	13.18	--	--
40	10.96	13.70	--	--
45	10.78	14.15	--	--

CK-6 28 Apr 52		1107 EST Depth 51'	Weather 03 Wind NE-2 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.50	9.31	226	0.59
5	13.49	9.31	221	0.62
10	13.35	9.37	226	0.76
15	12.92	9.58	230	0.52
20	12.06	11.15	--	0.00
25	11.29	12.87	--	0.00
30	11.22	13.04	--	0.00
35	11.14	13.17	--	0.00
40	10.95	13.68	--	0.00
45	--	--	--	0.00
47	10.90	13.75	--	0.00
50	10.71	14.18	--	--

CK-6 28 Apr 52		1000 EST Depth 51'	Weather 03 Wind NE-2 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.02	8.97	228	0.46
5	13.31	9.18	232	0.46
10	13.21	9.18	229	0.54
15	12.70	9.83	241	0.37
20	12.64	9.99	231	0.29
25	11.51	12.42	289	0.39
30	11.10	13.26	--	0.00
35	11.06	13.40	--	0.00
40	11.05	13.41	--	0.00
45	10.92	13.75	--	0.00
48	10.81	13.97	--	0.00

CK-6 28 Apr 52		1205 EST Depth 52'	Weather 03 Wind NE-2 Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.55	9.29	213	0.73
5	13.34	9.41	216	0.71
10	12.90	9.81	216	0.43
15	12.56	10.31	228	0.37
20	11.82	11.57	224	0.15
25	11.50	12.42	218	0.14
30	11.39	12.77	219	0.16
35	10.93	13.72	211	0.14
40	10.81	13.95	042	0.11
45	10.60	14.51	044	0.26
47	10.60	14.54	--	--

CK-6 28 Apr 52		1301 EST Depth 52'	Weather 67 Wind NE-2 Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.56	9.28	220	0.39
5	13.34	9.45	226	0.41
10	13.12	9.67	198	0.39
15	12.62	10.26	220	0.28
20	12.11	11.40	--	0.00
25	11.64	12.07	--	0.00
30	11.42	12.98	216	0.12
35	10.87	13.87	--	0.00
40	10.66	14.35	053	0.19
45	10.57	14.57	056	0.26
47	10.54	14.63	--	--

CK-6 28 Apr 52		1500 EST Depth 52'	Weather 67 Wind WNE-2 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.58	9.27	151	0.22
5	13.55	9.31	129	0.24
10	13.52	9.32	109	0.29
15	13.07	10.00	--	--
20	12.27	11.68	--	--
25	11.47	12.99	--	--
30	11.09	13.57	--	--
35	10.81	14.10	--	--
40	10.75	14.17	--	--
45	10.68	14.55	--	--

CK-6 28 Apr 52		1403 EST Depth 52'	Weather 67 Wind WNE-2 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.36	9.41	187	0.31
5	13.34	9.42	198	0.30
10	13.32	9.43	203	0.28
15	12.96	10.06	188	0.22
20	12.52	11.15	103	0.14
25	11.30	12.82	--	0.00
30	11.04	13.55	106	0.15
35	10.98	13.64	047	0.18
40	10.75	14.18	056	0.25
45	10.68	14.26	063	0.28

CK-6 28 Apr 52		1603 EST Depth -	Weather - Wind - Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.82	9.07	099	0.28
5	13.79	9.12	048	0.53
10	13.52	9.34	044	0.53
15	13.03	9.77	036	0.53
20	11.72	12.43	034	0.61
25	11.26	12.78	039	0.41
30	11.09	13.42	034	0.46
35	10.89	14.28	033	0.46
40	10.72	14.60	040	0.49
45	10.69	14.63	039	0.41

CK-6 28 Apr 52		1600 EST Depth 52'	Weather 03 Wind NE-2 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.73	8.93	091	0.68
5	13.69	9.07	066	0.46
10	13.11	9.60	066	0.61
15	12.42	10.76	062	0.74
20	11.52	12.32	062	0.77
25	11.21	13.08	006	0.35
30	10.86	14.10	091	0.49
35	10.81	14.37	--	0.00
40	10.75	14.54	--	0.00
45	10.71	14.67	--	0.00

CK-6 28 Apr 52		1900 EST Depth 50'	Weather 51 Wind NE-2 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.59	8.90	152	0.23
5	13.57	8.92	162	0.18
10	13.40	9.14	156	0.09
15	12.65	10.36	014	0.35
20	11.62	12.02	007	0.15
25	11.30	12.85	--	0.00
30	10.96	13.80	291	0.16
35	10.91	14.00	296	0.21
40	10.82	14.23	269	0.24
45	10.69	14.67	256	0.24

CK-6 28 Apr 52		1700 EST Depth 52'	Weather 03 Wind NE-2 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.70	8.95	074	0.35
5	13.64	9.00	066	0.46
10	13.40	9.18	034	0.71
15	12.14	11.41	038	0.74
20	11.63	12.08	070	0.35
25	11.45	12.67	--	0.00
30	10.90	14.00	--	0.00
35	10.81	14.33	--	0.00
40	10.79	14.38	--	0.00
45	10.67	14.80	--	0.00

CK-6 28 Apr 52		2000 EST Depth 48'	Weather 03 Wind NE-2 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.50	8.98	163	0.62
5	13.48	9.00	178	0.41
10	13.33	9.13	198	0.31
15	12.69	9.86	--	0.00
20	12.51	10.27	--	0.00
25	12.49	12.16	--	0.00
30	11.12	13.25	269	0.37
35	10.98	13.61	274	0.45
40	10.77	14.18	241	0.31
45	10.68	14.44	226	0.41

CK-6 28 Apr 52		2100 EST Depth 48'	Weather 03 Wind NNE-2 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	--	--	198	0.61
5	--	--	209	0.61
10	--	--	224	0.67
15	--	--	223	0.49
20	--	--	231	0.26
25	--	--	277	0.34
30	--	--	290	0.34
35	--	--	201	0.45
40	--	--	139	0.41
45	--	--	202	0.47

CK-6 28 Apr 52		2300 EST Depth 48'	Weather 03 Wind N-3 Air 13.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.43	9.35	223	0.65
5	13.43	9.35	238	0.56
10	13.34	9.40	227	0.62
15	13.24	9.50	214	0.64
20	12.72	10.18	209	0.49
25	12.06	11.35	218	0.29
30	11.81	11.84	210	0.34
35	11.34	12.86	--	0.00
40	10.87	13.84	090	0.22
45	10.76	14.18	041	0.26

CK-6 28 Apr 52		2200 EST Depth 48'	Weather 03 Wind NE-2 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.55	9.25	219	0.52
5	13.55	9.25	224	0.61
10	13.48	9.32	221	0.62
15	13.20	9.56	215	0.61
20	12.85	9.97	232	0.39
25	11.98	11.46	--	0.00
30	11.78	11.83	251	0.22
35	11.37	12.77	197	0.37
40	11.03	13.73	187	0.43
45	10.85	14.03	199	0.31

CK-6 29 Apr 52		0006 EST Depth 51'	Weather 03 Wind NE-3 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.41	9.31	222	0.51
5	13.42	9.31	217	0.26
10	13.40	9.31	212	0.29
15	13.35	9.41	213	0.47
20	12.88	9.96	237	0.56
25	12.12	11.20	232	0.39
30	11.38	12.73	--	0.00
35	10.92	13.82	042	0.26
40	10.86	13.98	042	0.39
45	10.70	14.52	112	0.52

CK-6		0508 EST	Weather 03	
29 Apr 52		Depth 50'	Wind NE-4	
			Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.02	8.85	--	--
5	13.08	8.91	--	--
10	13.38	9.13	--	--
15	12.98	9.57	--	--
20	12.65	10.11	--	--
25	12.32	11.13	--	--
30	11.62	12.55	075	0.51
35	11.48	12.80	060	0.52
40	11.34	13.15	038	0.51
45	10.96	13.99	031	0.49

CK-6		0700 EST	Weather 03	
29 Apr 52		Depth 50'	Wind NE-4	
			Air 12.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	12.87	8.97	062	0.53
5	12.87	8.94	074	0.53
10	12.87	8.97	056	0.53
15	12.87	9.10	064	0.68
20	12.49	10.23	053	0.61
25	12.15	11.17	--	0.00
30	11.62	12.42	--	0.00
35	11.26	13.32	--	0.00
40	11.15	13.56	--	0.00
45	11.00	13.87	--	0.00

CK-6		0600 EST	Weather 03	
29 Apr 52		Depth 50'	Wind NE-4	
			Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	12.67	8.72	118	0.73
5	12.68	8.72	099	0.97
10	12.72	8.87	076	1.06
15	12.68	9.72	052	1.06
20	12.26	10.79	048	0.86
25	12.15	11.35	040	0.53
30	11.46	12.77	054	0.53
35	11.16	13.49	--	0.00
40	10.97	13.95	--	0.00
45	10.92	14.03	--	0.00

CK-6		0800 EST	Weather 03	
29 Apr 52		Depth 49'	Wind NE-3	
			Air 12.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	12.95	9.02	--	0.00
5	12.96	9.02	--	0.00
10	12.96	9.01	--	0.00
15	12.90	9.17	--	0.00
20	12.66	9.58	--	0.00
25	12.26	10.92	--	0.00
30	11.82	11.89	--	0.00
35	11.41	12.98	--	0.00
40	11.08	13.65	--	0.00
45	11.04	13.75	--	0.00

CK-6
29 Apr 52

0900 EST
Depth 51'

Weather 03
Wind NNE-3
Air 12.8°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	12.95	9.07	211	0.29
5	12.95	9.07	199	0.26
10	12.94	9.08	138	0.26
15	12.78	9.73	--	--
20	12.37	10.67	--	--
25	12.25	10.95	--	--
30	12.02	11.49	--	--
35	11.72	12.17	--	--
40	11.24	13.34	--	--
45	11.13	13.52	--	--

CK-12 1300 EST Weather 03
28 Apr 52 Depth 64' Wind NE-3
Air 16.1°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	--	--	282	0.98
5	--	--	283	0.74
10	--	--	283	0.53
15	--	--	280	0.31
20	--	--	280	0.18
25	--	--	279	0.09
30	--	--	102	0.06
35	--	--	112	0.09
40	--	--	114	0.15
45	--	--	115	0.22
50	--	--	125	0.23
55	--	--	119	0.23
60	--	--	124	0.16

CK-12 1500 EST Weather 03
28 Apr 52 Depth 64' Wind NNE-3
Air 15.6°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.42	7.90	311	0.28
5	14.25	8.36	011	0.24
10	13.97	8.74	041	0.25
15	13.65	9.16	071	0.27
20	13.58	9.28	079	0.24
25	13.46	9.48	074	0.22
30	13.26	9.60	069	0.22
35	13.16	9.64	074	0.26
40	13.14	9.66	068	0.22
45	13.06	9.77	062	0.18
50	12.70	10.19	121	0.37
55	12.50	10.42	143	0.41
60	12.19	10.83	143	0.47
61	12.16	10.92	--	--

CK-12 1400 EST Weather 61
28 Apr 52 Depth 64' Wind NE-2
Air 15.6°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	7.75	--	280	0.65
5	--	--	290	0.64
10	--	--	330	0.64
15	--	--	291	0.31
20	--	--	280	0.12
25	--	--	271	0.06
30	9.40	--	117	0.25
35	--	--	122	0.26
40	--	--	123	0.25
45	--	--	123	0.26
50	--	--	123	0.22
55	--	--	124	0.24
60	--	--	109	0.18

CK-12 1600 EST Weather 61
28 Apr 52 Depth 63' Wind NNE-3
Air 15.0°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.29	8.10	014	0.13
5	14.25	8.25	024	0.37
10	13.96	8.69	024	0.41
15	13.69	9.05	034	0.37
20	13.59	9.16	053	0.31
25	13.45	9.35	073	0.34
30	13.33	9.45	113	0.31
35	13.26	9.49	141	0.37
40	13.22	9.53	149	0.45
45	12.90	10.01	138	0.51
50	12.67	10.17	128	0.56
55	12.52	10.36	128	0.56
60	12.01	11.03	132	0.51
61	11.99	11.03	--	--

CK-12 28 Apr 52		1700 EST Depth 63'	Weather 03 Wind NNE-3 Air 14.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.23	8.24	--	--
5	14.03	8.56	092	0.45
10	14.00	8.70	090	0.45
15	13.82	8.95	062	0.37
20	13.56	9.20	044	0.34
25	13.53	9.25	004	0.22
30	13.28	9.46	156	0.26
35	13.20	9.54	157	0.37
40	13.18	9.85	157	0.45
45	12.93	9.99	137	0.61
50	12.63	10.23	137	0.67
55	12.40	10.58	117	0.62
60	11.93	11.40	102	0.52
61	11.88	11.49	--	--
65	--	--	107	0.52

CK-12 28 Apr 52		1900 EST Depth 63'	Weather 40 Wind NNE-2 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.34	8.05	--	0.00
5	14.34	8.05	--	0.00
10	14.12	8.52	078	0.06
15	14.04	8.63	079	0.11
20	13.84	9.01	079	0.16
25	13.16	9.65	079	0.14
30	13.04	9.79	097	0.09
35	12.92	9.97	113	0.20
40	12.70	10.25	129	0.26
45	12.40	10.65	147	0.29
50	12.38	10.68	148	0.29
55	12.30	10.83	146	0.29
60	11.94	11.44	147	0.28
61	11.91	11.48	--	--

CK-12 28 Apr 52		1800 EST Depth 63'	Weather 03 Wind NNE-3 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.23	8.31	--	0.00
5	14.16	8.51	089	0.11
10	14.12	8.59	088	0.26
15	13.80	8.95	088	0.29
20	13.72	9.01	087	0.39
25	13.66	9.12	085	0.31
30	13.39	9.50	084	0.18
35	13.12	9.71	090	0.18
40	12.90	9.97	098	0.34
45	12.56	10.42	139	0.45
50	12.40	10.60	154	0.49
55	12.35	10.76	151	0.54
60	11.90	11.49	124	0.51
62	11.89	11.49	--	--

CK-12 28 Apr 52		2000 EST Depth 63'	Weather 40 Wind N-2 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.20	8.33	--	0.00
5	14.23	8.32	187	0.09
10	13.99	8.69	281	0.39
15	13.92	8.80	289	0.51
20	13.44	9.48	290	0.39
25	13.06	9.75	289	0.26
30	13.03	9.80	--	0.00
35	12.97	9.89	--	0.00
40	12.72	10.27	100	0.09
45	12.49	10.55	097	0.26
50	12.32	10.79	100	0.29
55	12.28	10.80	098	0.26
60	11.99	11.37	113	0.29
61	11.96	12.26	--	--

CK-12 28 Apr 52		2100 EST Depth 63'	Weather 57 Wind NNE-3 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.18	8.55	203	0.15
5	14.18	8.55	293	0.16
10	14.00	8.65	296	0.56
15	13.46	9.37	300	0.39
20	12.98	9.88	298	0.31
25	12.92	10.17	312	0.22
30	12.60	10.30	332	0.14
35	12.52	10.50	--	0.00
40	12.46	10.59	145	0.06
45	12.21	10.96	145	0.14
50	12.13	11.13	143	0.19
55	12.09	11.15	145	0.14
60	12.01	11.33	--	0.00
61	12.03	11.33	--	--

CK-12 28 Apr 52		2300 EST Depth 64'	Weather 03 Wind NNE-4 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.49	7.45	290	0.98
5	13.70	9.15	291	0.67
10	13.48	9.43	295	0.67
15	13.08	9.87	289	0.51
20	13.01	9.95	284	0.41
25	12.80	10.16	289	0.41
30	12.58	10.42	289	0.22
35	12.54	10.53	295	0.18
40	12.46	10.60	165	0.18
45	12.28	10.87	164	0.18
50	12.18	10.97	163	0.22
55	12.12	11.12	161	0.22
60	12.11	11.15	178	0.22
61	12.11	11.15	--	--

CK-12 28 Apr 52		2200 EST Depth 63'	Weather 51 Wind NNE-4 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.25	8.24	244	0.67
5	14.25	8.34	297	0.62
10	13.66	9.17	297	0.58
15	13.10	9.78	318	0.47
20	12.90	10.05	316	0.41
25	12.83	10.12	288	0.29
30	12.60	10.53	289	0.26
35	12.46	10.62	299	0.26
40	12.42	10.67	289	0.18
45	12.32	10.70	289	0.18
50	12.17	10.98	287	0.13
55	12.10	11.18	286	0.13
60	12.00	11.35	288	0.13
61	12.02	11.23	--	--

CK-12 29 Apr 52		0000 EST Depth 64'	Weather 03 Wind N-4 Air 13.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.53	7.25	303	1.29
5	14.04	8.57	297	1.07
10	13.35	9.50	309	0.87
15	13.16	9.70	297	0.45
20	13.01	9.91	291	0.26
25	12.86	10.08	281	0.13
30	12.76	10.24	107	0.13
35	12.66	10.38	111	0.29
40	12.56	10.41	111	0.34
45	12.48	10.67	114	0.41
50	12.36	10.83	111	0.41
55	12.19	11.15	109	0.29
60	12.07	11.30	104	0.18
61	12.04	11.34	--	--

CK-12 29 Apr 52		0100 EST Depth 64'		Weather 03 Wind N-4 Air 13.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.45	7.29	317	0.98	
5	14.43	7.40	312	0.90	
10	14.05	8.51	300	0.62	
15	13.73	9.04	289	0.34	
20	13.26	9.60	284	0.26	
25	13.00	9.95	106	0.13	
30	12.84	10.08	117	0.31	
35	12.72	10.27	120	0.34	
40	12.65	10.33	120	0.34	
45	12.57	10.43	119	0.34	
50	12.46	10.61	114	0.34	
55	12.11	11.13	114	0.26	
60	12.05	11.30	109	0.13	
61	11.99	11.42	--	--	

CK-12 29 Apr 52		0300 EST Depth 64'		Weather 03 Wind N-4 Air 11.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.26	7.55	028	0.41	
5	14.10	7.93	033	0.41	
10	13.95	8.51	037	0.41	
15	13.55	9.23	039	0.37	
20	13.26	9.55	029	0.41	
25	13.10	9.70	027	0.41	
30	13.06	9.77	029	0.41	
35	13.00	9.86	029	0.29	
40	12.96	9.93	132	0.41	
45	12.85	10.11	173	0.45	
50	12.65	10.36	173	0.52	
55	12.40	10.67	173	0.52	
60	12.25	10.95	172	0.45	
61	12.16	11.12	--	--	

CK-12 29 Apr 52		0200 EST Depth 64'		Weather 03 Wind N-3 Air 13.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.49	7.15	249	0.45	
5	14.45	7.38	337	0.56	
10	13.74	8.83	020	0.37	
15	13.45	9.73	062	0.26	
20	13.10	9.85	061	0.26	
25	13.08	9.86	060	0.29	
30	13.06	9.93	065	0.31	
35	12.96	10.02	072	0.37	
40	12.80	10.20	079	0.52	
45	12.44	10.63	079	0.47	
50	12.30	10.81	079	0.41	
55	12.28	10.90	077	0.31	
60	12.15	11.25	063	0.18	
61	12.05	11.41	--	--	

CK-12 29 Apr 52		0400 EST Depth 64'		Weather 51 Wind N-4 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	13.86	8.47	--	--	
5	13.84	8.55	141	0.13	
10	13.80	8.66	150	0.09	
15	13.72	8.77	140	0.13	
20	13.56	9.01	040	0.15	
25	13.52	9.07	042	0.37	
30	13.38	9.27	126	0.41	
35	13.26	9.45	148	0.49	
40	13.12	9.63	153	0.52	
45	13.08	9.70	152	0.54	
50	12.80	10.10	147	0.68	
55	12.50	10.52	147	0.61	
60	12.40	10.66	137	0.45	
61	12.38	10.72	--	--	

CK-12 29 Apr 52		0500 EST Depth 64'	Weather 51 Wind NNE-3 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.84	8.42	--	--
5	13.80	8.60	162	0.42
10	13.78	8.72	147	0.59
15	13.59	9.02	147	0.55
20	13.28	9.45	033	0.29
25	13.18	9.55	050	0.46
30	13.10	9.63	042	0.46
35	13.04	9.71	145	0.42
40	13.00	9.79	147	0.42
45	12.84	10.02	170	0.59
50	12.74	10.10	172	0.78
55	12.36	10.77	170	0.78
60	12.24	11.06	167	0.55
61	12.18	11.15	--	--

CK-12 29 Apr 52		0700 EST Depth 64'	Weather 58 Wind NE-4 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.78	8.51	191	0.15
5	13.78	8.52	027	0.14
10	13.76	8.58	--	0.00
15	13.54	9.12	057	0.20
20	13.43	9.23	046	0.26
25	13.06	9.60	046	0.41
30	12.93	9.91	117	0.31
35	12.82	10.13	113	0.31
40	12.59	10.40	110	0.37
45	12.38	10.72	116	0.45
50	12.35	10.81	135	0.51
55	12.28	10.92	147	0.51
60	12.17	11.11	116	0.47
61	12.15	11.12	--	--

CK-12 29 Apr 52		0600 EST Depth 64'	Weather 51 Wind NE-3 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.76	8.62	--	--
5	13.78	8.63	167	0.29
10	13.76	8.65	152	0.42
15	13.76	8.69	094	0.36
20	13.61	9.05	095	0.42
25	13.37	9.35	092	0.42
30	13.33	9.42	085	0.46
35	13.02	9.84	082	0.50
40	12.58	10.43	100	0.46
45	12.34	10.84	100	0.55
50	12.32	10.87	109	0.55
55	12.28	10.92	119	0.55
60	12.13	11.20	120	0.55
61	12.06	11.35	--	--

CK-12 29 Apr 52		0800 EST Depth 64'	Weather 58 Wind NE-4 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	13.78	8.52	192	0.15
5	13.78	8.52	312	0.11
10	13.78	8.52	282	0.20
15	13.76	8.55	293	0.18
20	13.12	9.30	024	0.16
25	12.78	10.18	066	0.19
30	12.68	10.30	125	0.20
35	12.61	10.38	123	0.21
40	12.47	10.58	127	0.21
45	12.45	10.63	131	0.24
50	12.44	10.65	143	0.25
55	12.40	10.71	142	0.26
60	12.32	10.80	141	0.25
61	12.28	10.94	--	--

CK-12 29 Apr 52		0900 EST Depth 64'		Weather 03 Wind NNE-3 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (c/oo)	Current		
			Dir (°T)	Speed (kts)	
0	13.80	3.65	--	0.00	
5	13.80	3.65	215	0.20	
10	13.48	9.13	306	0.30	
15	13.04	9.73	306	0.22	
20	12.84	10.05	307	0.14	
25	12.63	10.30	--	0.00	
30	12.61	10.36	122	0.09	
35	12.57	10.44	124	0.12	
40	12.49	10.55	125	0.14	
45	12.45	10.64	036	0.11	
50	12.36	10.79	029	0.09	
55	12.20	11.00	--	0.00	
60	12.17	11.14	135	0.11	
61	12.14	11.17	--	--	

CK-12 29 Apr 52		1104 EST Depth 64'		Weather 03 Wind N-4 Air 12.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	13.93	8.34	--	--	
5	13.92	8.35	288	0.52	
10	13.75	8.68	288	0.58	
15	12.99	9.84	298	0.51	
20	12.78	10.16	314	0.49	
25	12.56	10.42	318	0.39	
30	12.52	10.53	318	0.34	
35	12.51	10.57	318	0.34	
40	12.40	10.75	318	0.37	
45	12.31	10.88	319	0.29	
50	12.28	10.91	320	0.18	
55	12.25	11.03	318	0.18	
60	12.11	11.23	228	0.18	
61	12.13	11.23	--	--	

CK-12 29 Apr 52		1000 EST Depth 64'		Weather 57 Wind NNE-3 Air 12.8°C	
Depth (ft)	Temp (°C)	Sal (c/oo)	Current		
			Dir (°T)	Speed (kts)	
0	13.79	8.60	207	0.18	
5	13.78	8.63	291	0.22	
10	13.20	9.55	305	0.41	
15	12.67	10.30	309	0.39	
20	12.53	10.52	310	0.31	
25	12.56	10.58	310	0.15	
30	12.38	10.79	310	0.18	
35	12.32	10.86	332	0.24	
40	12.25	11.00	332	0.27	
45	12.23	11.02	323	0.26	
50	12.21	11.08	322	0.20	
55	12.14	11.23	294	0.16	
60	12.08	11.31	291	0.16	
61	12.07	11.35	--	--	

CK-12 29 Apr 52		1200 EST Depth 64'		Weather 03 Wind N-4 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.02	8.12	--	--	
5	13.98	8.14	307	0.70	
10	13.59	9.02	307	0.56	
15	13.14	9.70	309	0.45	
20	12.90	10.05	299	0.41	
25	12.73	10.25	310	0.34	
30	12.61	10.45	308	0.21	
35	12.55	10.56	267	0.18	
40	12.42	10.77	296	0.14	
45	12.36	10.84	259	0.16	
50	12.35	10.85	047	0.13	
55	12.32	10.88	087	0.22	
60	12.22	11.20	087	0.18	
61	12.08	11.37	--	--	

CK-17 29 Apr 52		1400 EST Depth 43'	Weather 03 Wind N-3 Air 15.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.46	5.37	--	--
5	14.45	5.37	293	0.56
10	14.45	6.88	292	0.67
15	14.42	7.31	292	0.54
20	14.12	8.03	285	0.15
25	13.90	8.56	295	0.15
30	13.84	8.93	046	0.00
35	13.65	9.17	047	0.21
40	13.47	9.45	046	0.20

CK-17 29 Apr 52		1600 EST Depth 43'	Weather 03 Wind S-2 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.47	5.01	288	0.18
5	14.49	6.10	288	0.09
10	14.50	6.76	288	0.09
15	14.47	7.13	288	0.11
20	14.35	7.57	098	0.06
25	14.12	8.27	107	0.16
30	13.92	8.60	107	0.22
35	13.65	9.09	112	0.25
40	13.55	9.29	112	0.25

CK-17 29 Apr 52		1500 EST Depth 43'	Weather 51 Wind N-3 Air 15.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.43	5.16	287	0.46
5	14.43	5.16	287	0.42
10	14.45	6.83	240	0.18
15	14.43	7.34	007	0.09
20	14.07	8.16	--	0.00
25	14.00	8.51	038	0.12
30	13.84	8.77	048	0.24
35	13.61	9.24	038	0.12
40	13.37	9.56	038	0.18

CK-17 29 Apr 52		1700 EST Depth 43'	Weather 03 Wind S-1 Air 16.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.48	5.72	107	0.23
5	14.51	6.60	107	0.26
10	14.50	6.74	107	0.30
15	14.42	7.23	108	0.35
20	14.29	7.76	108	0.37
25	14.12	8.09	108	0.36
30	14.02	8.31	108	0.32
35	13.92	8.56	108	0.21
40	13.59	9.18	108	0.18

CK-17 29 Apr 52		1800 EST Depth 43'	Weather 02 Wind NNE-1 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.47	5.55	115	0.20
5	14.34	6.58	110	0.54
10	14.43	6.81	110	0.51
15	14.31	7.59	115	0.22
20	14.20	7.95	110	0.39
25	14.01	8.38	110	0.43
30	13.88	8.77	110	0.18
35	13.22	9.82	110	0.18
40	13.04	10.01	110	0.26

CK-17 29 Apr 52		2000 EST Depth 43'	Weather 02 Wind - Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.36	6.17	113	0.19
5	14.42	6.49	108	0.20
10	14.42	6.96	108	0.22
15	14.36	7.32	108	0.23
20	14.27	7.68	108	0.25
25	13.93	8.45	123	0.16
30	13.42	9.26	058	0.12
35	12.85	10.23	078	0.12
39	12.84	10.25	--	--
40	--	--	293	0.06

CK-17 29 Apr 52		1900 EST Depth 43'	Weather 02 Wind - Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.35	6.20	121	0.31
5	14.44	6.37	111	0.41
10	14.40	6.85	111	0.41
15	14.31	7.44	111	0.39
20	14.25	7.92	111	0.43
25	13.95	8.66	121	0.29
30	13.00	10.02	--	0.00
35	12.84	10.27	--	0.00
39	12.81	10.26	--	--
40	--	--	121	0.06

CK-17 29 Apr 52		2100 EST Depth 43'	Weather 03 Wind - Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.36	6.43	228	0.23
5	14.40	6.57	--	0.00
10	14.41	7.07	--	0.00
15	14.35	7.50	108	0.14
20	13.75	8.56	208	0.11
25	13.54	9.10	--	0.00
30	13.25	9.68	118	0.09
35	13.04	9.94	118	0.09
39	12.97	9.97	--	--
40	--	--	--	0.00

CK-17 29 Apr 52		2203 EST Depth 43'	Weather 03 Wind 0 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.39	5.52	296	0.43
5	14.35	6.56	286	0.32
10	14.38	7.26	266	0.14
15	14.35	7.48	--	0.00
20	14.23	7.86	266	0.20
25	13.84	8.77	266	0.14
30	13.35	9.51	206	0.09
35	13.25	9.78	246	0.06
39	12.93	10.05	--	--
40	--	--	246	0.06

CK-17 30 Apr 52		0000 EST Depth 43'	Weather 00 Wind NW-1 Air 15.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.44	5.64	307	0.45
5	14.51	6.23	297	0.51
10	14.43	6.63	297	0.45
15	14.39	6.92	297	0.29
20	14.23	7.51	297	0.26
25	13.71	8.66	297	0.18
30	13.48	9.27	297	0.13
35	13.42	9.42	297	0.15
40	13.31	9.55	297	0.12

CK-17 29 Apr 52		2300 EST Depth 43'	Weather 01 Wind 0 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.35	5.71	296	0.45
5	14.34	6.38	286	0.39
10	14.42	6.69	286	0.22
15	14.37	7.35	286	0.22
20	14.21	7.84	286	0.15
25	13.75	8.83	286	0.12
30	13.43	9.43	286	0.12
35	13.29	9.67	266	0.11
39	13.00	9.90	--	--
40	--	--	266	0.06

CK-17 30 Apr 52		0100 EST Depth 43'	Weather 00 Wind NW-1 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.31	4.91	301	0.67
5	14.49	6.15	296	0.59
10	14.50	6.51	296	0.30
15	14.38	7.14	296	0.14
20	14.29	7.73	297	0.11
25	14.02	8.12	297	0.06
30	13.71	8.85	107	0.12
35	13.50	9.35	107	0.14
40	13.21	10.07	107	0.11

CK-17 0200 EST Weather 00 30 Apr 52 Depth 43' Wind NW-1 Air 15.3°C				
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.24	4.82	305	0.54
5	14.47	5.92	305	0.41
10	14.45	6.56	295	0.18
15	14.40	7.05	296	0.13
20	14.30	7.55	296	0.13
25	14.18	8.38	116	0.13
30	13.55	9.29	115	0.22
35	13.11	9.85	115	0.22
40	12.87	10.26	116	0.13

CK-17 0400 EST Weather 00 30 Apr 52 Depth 43' Wind N-2 Air 15.0°C				
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.19	5.09	--	0.00
5	14.39	6.28	104	0.43
10	14.42	6.73	104	0.52
15	14.33	7.35	104	0.51
20	14.06	8.07	103	0.43
25	13.65	8.77	104	0.34
30	13.44	9.28	104	0.27
35	13.06	9.84	104	0.24
40	13.02	9.98	104	0.20

CK-17 0300 EST Weather 00 30 Apr 52 Depth 43' Wind N-2 Air 15.0°C				
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.30	4.98	294	0.09
5	14.39	6.10	113	0.06
10	14.43	6.67	114	0.13
15	14.40	7.15	124	0.37
20	14.29	7.77	114	0.41
25	14.03	8.61	114	0.41
30	13.41	9.38	114	0.41
35	13.00	9.97	115	0.34
40	12.90	10.17	125	0.26

CK-17 0500 EST Weather 00 30 Apr 52 Depth 43' Wind N-3 Air 14.7°C				
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.23	5.18	--	--
5	14.45	6.17	105	0.70
10	14.49	6.65	105	0.74
15	14.15	6.83	105	0.74
20	14.16	7.55	105	0.59
25	13.84	8.42	104	0.14
30	13.38	9.25	104	0.16
35	12.92	10.00	104	0.21
40	12.70	10.38	104	0.24

CK-17 30 Apr 52		0600 EST Depth 43'		Weather 00 Wind N-3 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.15	5.61	125	0.51	
5	14.22	5.88	110	0.54	
10	14.25	6.25	105	0.65	
15	14.42	6.73	105	0.70	
20	14.35	7.10	110	0.67	
22 $\frac{1}{2}$	14.06	7.86	--	--	
25	13.69	8.63	120	0.29	
30	13.15	9.68	115	0.37	
35	12.75	10.18	115	0.13	
39	12.73	10.19	--	--	
40	--	--	210	0.18	

CK-17 30 Apr 52		0800 EST Depth 43'	Weather 00 Wind W-2 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.34	6.24	107	0.39
5	14.32	6.45	107	0.31
10	14.36	6.73	107	0.59
15	14.30	7.15	116	0.43
20	14.14	7.55	128	0.18
25	13.35	9.24	111	0.21
30	12.87	9.97	112	0.06
35	12.82	10.13	297	0.14
39	12.84	10.08	--	--
40	--	--	297	0.12

CK-17 30 Apr 52		0700 EST Depth 43'		Weather 00 Wind W-2 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.28	5.95	125	0.54	
5	14.25	6.38	110	0.74	
10	14.21	6.49	110	0.76	
15	14.26	6.97	115	0.65	
20	14.21	7.24	120	0.54	
22 $\frac{1}{2}$	14.06	7.84	--	--	
25	13.15	9.00	120	0.15	
30	13.04	9.87	110	0.06	
35	12.82	10.10	110	0.06	
39	12.82	10.11	--	0.00	

CK-17 30 Apr 52		0900 EST Depth 43'		Weather 00 Wind NNW-3 Air 19.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.56	6.09	091	0.26	
5	14.35	6.51	091	0.41	
10	14.33	7.06	091	0.41	
15	14.11	7.65	106	0.21	
20	13.80	8.35	100	0.19	
25	13.38	9.26	106	0.09	
30	13.23	9.48	285	0.12	
35	12.86	10.01	296	0.18	
39	12.85	10.05	--	--	
40	--	--	292	0.12	

CK-17		1000 EST	Weather 00	
30 Apr 52		Depth 43'	Wind NW-4	
			Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.64	6.01	297	0.12
5	14.61	6.26	292	0.15
10	14.21	7.43	--	0.00
15	14.04	7.68	287	0.11
20	13.58	8.72	287	0.14
25	13.32	9.27	--	0.00
30	13.03	9.77	--	0.00
35	12.92	9.97	277	0.15
39	12.92	9.98	--	--
40	--	--	277	0.18

CK-17		1200 EST	Weather 00	
30 Apr 52		Depth 43'	Wind NW-4	
			Air 22.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.12	5.73	--	0.00
5	15.13	5.69	184	0.13
10	14.43	6.50	277	0.54
15	14.21	6.98	291	0.70
20	13.96	7.71	291	0.70
25	13.56	8.82	293	0.41
30	13.29	9.30	295	0.22
35	13.12	9.60	295	0.22
40	13.00	9.87	295	0.18

CK-17		1100 EST	Weather 00	
30 Apr 52		Depth 43'	Wind NW-4	
			Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.91	5.72	299	0.41
5	14.81	5.88	299	0.51
10	14.29	6.87	289	0.45
15	14.16	7.66	279	0.22
20	13.78	8.60	--	0.00
25	13.37	9.23	--	0.00
30	13.16	9.65	289	0.22
35	12.97	9.95	289	0.22
39	12.97	9.95	--	--
40	--	--	289	0.22

CK-17		1300 EST	Weather 00	
30 Apr 52		Depth 34'	Wind NNW-5	
			Air 21.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.99	5.77	275	0.49
5	15.01	5.76	285	0.67
10	14.81	5.88	285	0.82
15	14.27	6.63	292	0.82
20	14.12	7.46	294	0.74
25	13.66	8.54	292	0.74
30	13.31	9.43	292	0.54
35	13.10	9.75	014	0.18
40	12.98	9.95	014	0.18

CK-20 29 Apr 52		1125 EST Depth 44'	Weather 51 Wind N-2 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.50	4.02	222	1.06
5	14.45	4.52	226	0.73
10	14.44	4.69	222	0.71
15	14.44	6.04	221	0.49
20	14.46	6.90	218	0.34
25	14.38	7.56	217	0.31
30	14.31	7.84	216	0.29
35	14.28	7.97	218	0.26
40	14.26	8.03	223	0.18

CK-20 29 Apr 52		1300 EST Depth 45'	Weather 51 Wind NNW-2 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.59	3.55	231	0.61
5	14.53	4.37	223	0.61
10	14.54	4.39	214	0.65
15	14.51	4.75	216	0.58
20	14.48	5.36	241	0.49
25	14.46	6.30	238	0.54
30	14.44	6.92	230	0.58
35	14.34	7.59	241	0.58
40	14.30	7.92	251	0.29

CK-20 29 Apr 52		1205 EST Depth 45'	Weather 51 Wind NNW-2 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.51	4.00	225	0.73
5	14.49	4.60	223	0.68
10	14.47	4.75	222	0.73
15	14.45	4.92	223	0.53
20	14.45	5.87	222	0.43
25	14.44	6.84	221	0.35
30	14.41	7.38	222	0.41
35	14.31	7.88	219	0.35
40	14.28	7.95	--	0.00

CK-20 29 Apr 52		1400 EST Depth 45'	Weather 03 Wind N-1 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.60	3.55	202	0.65
5	14.58	3.74	223	0.58
10	14.57	3.96	223	0.54
15	14.55	4.59	213	0.71
20	14.51	5.12	228	0.49
25	14.49	5.77	243	0.49
30	14.46	6.50	229	0.46
35	14.40	7.27	229	0.41
40	14.36	7.49	216	0.29

CK-20 29 Apr 52		1500 EST Depth 45'	Weather 52 Wind N-1 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.59	3.62	198	0.41
5	14.59	3.62	218	0.41
10	14.57	3.83	197	0.46
15	14.54	4.62	198	0.41
20	14.51	5.07	238	0.31
25	14.50	5.62	245	0.34
30	14.48	6.27	273	0.18
35	14.40	7.07	--	0.00
40	14.39	7.25	085	0.22

CK-20 29 Apr 52		1700 EST Depth 45'	Weather 03 Wind NNE-1 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.69	3.43	--	0.00
5	14.65	3.59	--	0.00
10	14.56	4.14	044	0.16
15	14.52	5.14	088	0.39
20	14.42	6.26	069	0.34
25	14.32	7.56	049	0.49
30	14.28	7.78	059	0.62
35	14.22	8.00	059	0.67
40	14.21	8.05	059	0.54

CK-20 29 Apr 52		1600 EST Depth 45'	Weather 03 Wind NNE-1 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.62	4.02	222	0.20
5	14.59	3.64	194	0.23
10	14.57	3.78	193	0.30
15	14.53	4.58	--	0.00
20	14.50	5.89	053	0.12
25	14.38	7.19	022	0.15
30	14.38	7.17	036	0.21
35	14.31	7.66	060	0.34
40	14.20	8.07	--	--

CK-20 29 Apr 52		1803 EST Depth 45'	Weather 02 Wind N-1 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.62	3.72	--	0.00
5	14.52	4.33	077	0.41
10	14.50	4.60	082	0.29
15	14.44	5.33	077	0.41
20	14.41	5.66	070	0.41
25	14.34	7.27	072	0.49
30	14.22	7.99	066	0.61
35	14.20	8.10	057	0.58
40	14.18	8.11	057	0.54

CK-20		1906 EST	Weather 02	
29 Apr 52		Depth 45'	Wind NE-1	
			Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.50	4.09	041	0.45
5	14.49	4.64	037	0.31
10	14.48	5.42	042	0.31
15	14.43	5.85	042	0.39
20	14.38	7.07	040	0.43
25	14.30	7.62	046	0.56
30	14.26	7.84	045	0.74
35	14.26	7.87	042	0.80
40	14.25	7.90	027	0.68

CK-20		2100 EST	Weather 51	
29 Apr 52		Depth 45'	Wind NE-1	
			Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.50	3.83	--	0.00
5	14.50	4.70	--	0.00
10	14.48	5.66	--	0.00
15	14.34	7.31	--	0.00
20	14.28	7.62	--	0.00
25	14.23	7.97	--	0.00
30	14.21	8.01	050	0.11
35	14.18	8.07	056	0.18
40	14.16	8.14	056	0.24

CK-20		2000 EST	Weather 02	
29 Apr 52		Depth 45'	Wind NW-1	
			Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.50	4.24	050	0.27
5	14.52	5.02	049	0.30
10	14.50	5.50	052	0.31
15	14.44	6.22	050	0.23
20	14.32	7.35	060	0.27
25	14.24	7.88	053	0.35
30	14.20	8.02	037	0.22
35	14.20	8.08	042	0.41
40	14.18	8.11	040	0.35

CK-20		2203 EST	Weather 02	
29 Apr 52		Depth 45'	Wind NW-1	
			Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.58	3.25	209	0.71
5	14.51	3.93	219	0.34
10	14.49	4.18	253	0.19
15	14.36	7.22	--	0.00
20	14.25	7.84	--	0.00
25	14.19	8.06	--	0.00
30	14.17	8.14	--	0.00
35	14.14	8.19	--	0.00
40	14.11	8.26	055	0.09

CK-20		2304 EST	Weather 02	
29 Apr 52		Depth 45'	Wind NW-1	
			Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.62	3.52	212	0.51
5	14.51	3.72	215	0.43
10	14.49	5.53	210	0.41
15	14.34	7.45	215	0.20
20	14.21	7.97	215	0.22
25	14.19	8.04	216	0.21
30	14.15	8.15	226	0.21
35	14.13	8.22	226	0.19
40	14.11	8.26	225	0.12

CK-20		0100 EST	Weather 02	
30 Apr 52		Depth 45'	Wind NW-1	
			Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.60	3.12	198	0.77
5	14.60	3.29	198	0.71
10	14.61	3.75	208	0.61
15	14.51	4.80	208	0.46
20	14.38	6.90	203	0.49
25	14.27	7.80	206	0.16
30	14.22	7.97	--	0.00
35	14.21	8.01	--	0.00
40	14.19	8.05	--	0.00

CK-20		0000 EST	Weather 02	
30 Apr 52		Depth 45'	Wind NW-1	
			Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.58	3.17	216	0.65
5	14.60	3.67	211	0.68
10	14.52	4.98	210	0.65
15	14.45	6.04	208	0.49
20	14.28	7.78	208	0.41
25	14.22	7.97	216	0.18
30	14.19	8.04	214	0.11
35	14.17	8.13	--	0.00
40	14.16	8.18	--	0.00

CK-20		0201 EST	Weather 02	
30 Apr 52		Depth 45'	Wind NW-1	
			Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.63	2.93	203	0.62
5	14.60	3.20	201	0.61
10	14.57	4.06	204	0.37
15	14.54	4.41	247	0.24
20	14.36	7.12	190	0.16
25	14.30	7.60	--	0.00
30	14.28	7.77	--	0.00
35	14.22	7.95	091	0.12
40	14.17	8.13	091	0.15

CK-20 30 Apr 52		0302 EST Depth 45'		Weather 02 Wind NNW-1 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.62	2.98	193	0.29	
5	14.65	3.05	192	0.34	
10	14.55	4.23	--	0.00	
15	14.43	6.35	--	0.00	
20	14.34	7.21	219	0.18	
25	14.24	7.74	220	0.22	
30	14.22	7.90	239	0.47	
35	14.11	8.23	239	0.52	
40	13.90	8.58	244	0.41	

CK-20 30 Apr 52		0500 EST Depth 45'	Weather 02 Wind NNW Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.54	3.92	--	0.00
5	14.28	4.20	052	0.61
10	14.31	4.70	051	0.68
15	14.48	5.01	051	0.81
20	14.45	5.62	048	0.86
25	14.28	7.45	054	1.06
30	14.10	8.13	053	0.73
35	14.04	8.32	058	0.61
40	14.02	8.38	058	0.53

CK-20 30 Apr 52		0400 EST Depth 45'		Weather 02 Wind NNW-1 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°)	Speed (kts)	
0	14.46	2.40	--	0.00	
5	14.56	3.78	211	0.29	
10	14.54	4.50	221	0.39	
15	14.42	6.36	211	0.26	
20	14.31	7.20	212	0.41	
25	14.21	7.94	214	0.73	
30	13.90	8.58	214	0.53	
35	13.87	8.64	224	0.39	
40	13.86	8.64	226	0.37	

CK-20 30 Apr 52		0600 EST Depth 45'		Weather 00 Wind NW-1 Air 20.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.23	4.38	062	1.01	
5	14.28	5.03	053	1.06	
10	14.40	5.44	050	1.10	
15	14.38	6.60	067	1.19	
20	14.25	7.53	062	1.19	
25	14.11	8.01	059	1.01	
30	14.09	8.10	057	0.81	
35	14.07	8.10	064	0.81	
40	14.03	8.18	063	0.81	

CK-20 30 Apr 52		0700 EST Depth 45'		Weather 00 Wind NW-1 Air 20.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.34	4.45	076	0.73	
5	14.41	5.60	065	0.81	
10	14.27	7.08	027	0.86	
15	14.25	7.20	030	0.97	
20	14.26	7.40	050	1.10	
25	13.86	8.47	062	0.86	
30	13.82	8.50	065	0.97	
35	13.81	8.65	060	0.97	
40	13.81	8.64	054	0.92	

CK-20 30 Apr 52		0900 EST Depth 45'		Weather 00 Wind NW-1 Air 21.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.57	4.52	084	0.41	
5	14.49	4.56	052	0.49	
10	14.42	4.90	060	0.58	
12 ¹ / ₂	14.38	5.95	--	--	
15	14.25	7.26	068	0.58	
20	13.97	8.01	075	0.54	
25	13.88	8.30	062	0.54	
30	13.83	8.40	040	0.54	
35	13.69	8.84	035	0.49	
40	13.64	8.87	033	0.49	

CK-20 30 Apr 52		0800 EST Depth 45'		Weather 00 Wind NW-1 Air 19.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.42	4.48	097	0.41	
5	14.37	4.48	095	0.29	
10	14.40	4.63	071	0.46	
15	14.41	5.69	043	0.58	
20	14.15	7.37	042	0.74	
25	14.08	7.82	047	0.90	
30	13.95	8.24	052	0.85	
35	13.79	8.65	070	0.74	
40	13.75	8.75	065	0.68	

CK-20 30 Apr 52		1000 EST Depth 45'	Weather 00 Wind NW-1 Air 20.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.82	4.18	190	0.34
5	14.66	4.51	--	0.00
10	14.42	5.25	--	0.00
15	14.22	7.22	--	0.00
20	13.87	8.28	--	0.00
25	13.75	8.61	--	0.00
30	13.74	8.68	--	0.00
35	13.65	8.84	--	0.00
40	13.61	8.95	356	0.29

CK-26 30 Apr 52		1600 EST Depth 26'	Weather 00 Wind NNW-3 Air 23.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.55	0.85	205	0.98
5	15.40	0.90	217	1.07
10	15.32	1.05	226	1.07
15	14.99	1.39	224	0.87
20	14.79	1.93	224	0.69
23	--	--	227	0.31
25	14.76	2.37	--	--
26	14.75	2.24	--	--

CK-26 30 Apr 52		1800 EST Depth 29'	Weather 00 Wind NNW-1 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.47	0.67	212	0.25
5	15.40	1.14	232	0.32
10	15.46	1.31	200	0.06
15	15.49	1.33	110	0.09
20	15.60	1.38	069	0.14
25	15.90	1.61	080	0.21
26	15.92	2.06	--	--

CK-26 30 Apr 52		1700 EST Depth 29'	Weather 00 Wind NNW-2 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.60	0.78	185	0.44
5	15.48	0.80	194	0.62
10	15.26	1.04	192	0.44
15	15.03	1.35	198	0.36
20	15.01	1.46	197	0.21
26	14.92	1.84	117	0.42

CK-26 30 Apr 52		1900 EST Depth 29'	Weather 00 Wind 0 Air 19.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.46	0.90	--	--
5	15.46	1.04	014	0.13
10	15.41	1.33	034	0.15
15	15.54	1.45	054	0.21
20	15.84	1.51	054	0.28
25	15.86	1.95	059	0.28
26	15.90	1.94	--	--

CK-26 30 Apr 52		2000 EST Depth 27'	Weather 00 Wind 0 Air 17.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	16.68	0.92	060	0.11
5	16.37	0.88	015	0.25
10	15.54	1.17	054	0.28
15	15.59	1.42	079	0.43
20	15.69	1.72	079	0.49
25	15.13	2.60	075	0.41
26	14.97	3.02	--	--

CK-26 30 Apr 52		2300 EST Depth 29'	Weather 00 Wind ENE-1 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.50	1.09	216	0.24
5	15.44	1.71	236	0.28
10	15.36	1.97	236	0.09
15	15.35	2.03	--	0.00
20	15.28	2.41	236	0.11
25	15.10	2.74	236	0.14
26	15.05	2.78	--	--

CK-26 30 Apr 52		2100 EST Depth 29'	Weather 00 Wind 0 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	16.18	1.03	063	0.13
5	15.62	1.04	066	0.18
10	15.38	1.17	068	0.18
15	15.42	1.29	073	0.31
20	15.54	1.77	083	0.37
25	15.42	2.10	073	0.49
26	15.11	2.79	--	--

CK-26 1 May 52		0000 EST Depth 29'	Weather 00 Wind ENE-1 Air 14.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.49	0.98	228	0.85
5	15.46	1.14	228	0.68
10	15.36	1.59	227	0.52
15	15.16	2.26	216	0.31
20	15.02	2.54	217	0.18
25	--	--	217	0.13
26	15.07	2.78	--	--

CK-26 30 Apr 52		2200 EST Depth 29'	Weather 00 Wind ENE-1 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.40	1.00	--	0.00
5	15.46	1.06	--	0.00
10	15.49	1.18	207	0.09
15	15.52	1.56	--	0.00
20	15.61	1.75	067	0.20
22 1/2	15.45	2.27	--	--
25	15.23	2.45	065	0.28
26	15.26	2.47	--	--

CK-26 1 May 52		0100 EST Depth 29'	Weather 00 Wind ENE-1 Air 13.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.34	0.62	224	1.24
5	15.51	0.86	224	0.95
10	15.43	1.49	225	0.90
15	15.15	2.40	224	0.59
20	15.08	2.53	224	0.18
25	--	--	034	0.13
26	15.07	2.68	--	--

CK-26 1 May 52		0200 EST Depth 29'	Weather OC Wind 0 Air 13.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.18	0.36	222	1.00
5	15.36	0.74	223	1.07
10	15.40	0.90	223	1.12
15	15.34	1.51	223	0.81
20	15.16	2.08	223	0.50
25	--	--	222	0.29
26	15.13	2.39	--	--

CK-26 1 May 52		0500 EST Depth 29'	Weather 00 Wind E-1 Air 10.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.20	0.40	062	0.42
5	15.27	0.49	072	0.42
10	15.27	0.68	073	0.29
15	15.23	0.97	287	0.22
20	15.15	1.24	287	0.31
25	--	--	287	0.39
26	15.24	1.54	--	--

CK-26 1 May 52		0300 EST Depth 29'	Weather 00 Wind 0 Air 12.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.14	0.42	222	1.05
5	15.27	0.75	222	0.87
10	15.28	1.07	222	0.87
15	15.23	1.45	222	0.66
20	15.23	1.64	222	0.42
25	--	--	223	0.21
26	15.21	1.93	--	--

CK-26 1 May 52		0600 EST Depth 31'	Weather 00 Wind 0 Air 11.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.04	0.39	053	0.22
5	15.16	0.54	042	0.29
10	15.11	0.79	040	0.31
15	14.98	0.91	055	0.39
20	14.96	1.05	057	0.49
25	15.17	1.35	059	0.51
27	15.21	1.55	--	--
28	15.23	1.65	--	--
28	15.24	1.63	--	--
29	14.97	3.14	--	--

CK-26 1 May 52		0400 EST Depth 29'	Weather 00 Wind 0 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.15	0.38	222	0.59
5	15.28	0.58	222	0.62
10	15.28	0.66	222	0.59
15	15.27	0.86	221	0.59
20	15.25	1.29	221	0.36
25	--	--	220	0.21
26	15.24	1.44	--	--

CK-26 1 May 52		0700 EST Depth 30'	Weather 00 Wind W-1 Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.99	0.42	030	0.41
5	15.09	0.62	035	0.51
10	15.12	0.69	040	0.52
15	15.18	1.09	060	0.62
20	15.17	1.41	060	0.59
25	15.12	2.30	062	0.59
30	15.04	2.63	--	--

CK-26 1 May 52		0800 EST Depth 32'		Weather 00 Wind W-1 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	15.23	0.79	065	0.69	
5	15.11	1.11	065	0.74	
10	15.12	1.35	062	0.87	
15	15.09	1.72	062	0.82	
20	15.18	2.06	062	0.82	
25	15.18	2.10	062	0.74	
29	15.12	2.35	--	--	
30	--	--	060	0.62	

CK-26		1100 EST	Weather 00	
1 May 52		Depth 32'	Wind NNE-2	
			Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.74	1.59	--	0.00
5	15.52	1.60	--	0.00
10	15.50	1.67	--	0.00
15	15.25	2.31	060	0.18
20	15.21	2.40	060	0.34
25	15.17	2.56	058	0.39
27 ¹ / ₂	15.12	2.79	--	--
29	--	--	057	0.39

CK-26 1 May 52		0900 EST Depth 32'		Weather 00 Wind N-2 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	15.20	1.55	062	0.69	
5	15.18	1.54	062	0.69	
10	15.17	1.53	062	0.69	
15	15.18	1.56	064	0.53	
20	15.15	1.99	063	0.69	
25	15.12	2.36	061	0.69	
29	15.07	2.73	--	--	
30	--	--	064	0.62	

CK-26 1 May 52		1200 EST Depth 32'	Weather 00 Wind NNE-2 Air 20.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	16.33	1.24	188	0.62
5	16.26	1.28	215	0.65
10	15.88	1.40	216	0.43
15	15.27	2.40	216	0.26
20	15.13	2.92	207	0.22
25	15.02	3.28	208	0.16

CK-26 1 May 52		1000 EST Depth 30'		Weather 00 Wind NNW-2 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	15.43	1.58	028	0.26	
5	15.36	1.56	036	0.41	
10	15.36	1.58	032	0.47	
15	15.32	1.59	030	0.29	
17 $\frac{1}{2}$	15.17	2.14	--	--	
20	15.07	2.65	036	0.31	
25	15.05	2.71	037	0.43	
29	15.01	2.93	--	--	

CK-26 1 May 52		1300 EST Depth 32'		Weather 00 Wind NNW-2 Air 17.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	16.30	1.12	204	1.00	
5	16.00	1.19	234	0.90	
10	15.34	1.80	232	0.59	
15	15.13	2.61	206	0.51	
20	15.08	2.93	209	0.12	
25	15.05	3.20	209	0.24	

CK-26		1400 EST	Weather 00	
1 May 52		Depth 32'	Wind NNW-3	
			Air 19.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	16.23	0.97	205	1.07
5	15.72	1.22	209	1.14
10	15.32	1.75	216	1.12
15	15.17	2.60	216	0.95
20	15.20	2.81	216	0.59
26	15.07	3.00	--	--
25	--	--	216	0.36

CK-26		1500 EST	Weather 00	
1 May 52		Depth 32'	Wind NNW-2	
			Air 19.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	16.40	1.04	202	1.19
5	15.45	1.38	221	1.17
10	15.42	1.61	221	0.95
15	15.26	1.83	221	0.84
20	15.17	2.18	212	0.50
25	15.08	2.80	207	0.36

CK-30		1200 EST	Weather 00	
30 Apr 52		Depth 45'	Wind NW-2	
			Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.21	0.10	139	0.46
5	14.87	0.10	133	0.41
10	14.78	0.10	143	0.41
15	14.74	0.10	126	0.35
20	14.72	0.11	133	0.41
25	14.70	0.12	137	0.35
30	14.68	0.12	138	0.29
35	14.66	0.13	134	0.46
40	14.65	0.13	136	0.29
45	14.65	0.13	--	--
50	14.65	0.13	--	--

CK-30		1303 EST	Weather 00	
30 Apr 52		Depth 45'	Wind NW-2	
			Air 25.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.25	0.12	129	0.85
5	15.17	0.11	122	0.68
10	15.07	0.10	113	0.85
15	14.97	0.11	096	0.71
20	14.87	0.14	100	0.77
25	14.72	0.29	102	0.77
30	14.74	0.27	138	0.49
35	14.76	0.26	096	0.65
40	14.79	0.23	134	0.77

CK-30		1230 EST	Weather -	
30 Apr 52		Depth 45'	Wind -	
			Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.40	0.32	--	--
5	15.31	0.31	--	--
10	15.19	0.31	--	--
15	14.97	0.34	--	--
20	14.91	0.30	--	--
25	14.95	0.41	--	--
30	14.76	0.59	--	--
35	14.74	0.62	--	--
40	14.72	0.63	--	--

CK-30		1410 EST	Weather 00	
30 Apr 52		Depth 45'	Wind NW-2	
			Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.25	0.12	154	0.61
5	15.21	0.10	148	0.61
10	15.21	0.10	121	0.46
15	15.17	0.10	120	0.82
20	15.17	0.09	147	0.46
25	15.09	0.10	151	0.65
30	14.95	0.09	142	0.68
35	14.91	0.10	112	0.88
40	14.87	0.10	118	0.80

CK-30		1500 EST	Weather 00	
30 Apr 52		Depth 45'	Wind NW-2	
			Air 29.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.34	0.09	152	0.41
5	15.27	0.08	093	0.46
10	15.34	0.08	145	0.61
15	15.19	0.08	--	0.00
20	15.19	0.08	107	0.77
25	15.13	0.08	100	0.71
30	15.05	0.08	086	0.49
35	14.95	0.08	090	0.68
40	14.91	0.08	062	0.54

CK-30		1705 EST	Weather 00	
30 Apr 52		Depth 45'	Wind N-2	
			Air 31.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.05	0.08	155	0.33
5	15.05	0.08	142	0.20
10	15.03	0.08	140	0.31
15	15.02	0.08	090	0.31
20	15.03	0.08	106	0.23
25	14.99	0.08	080	0.23
30	14.95	0.06	096	0.16
35	14.91	0.06	092	0.23
40	14.80	0.06	100	0.23

CK-30		1600 EST	Weather 00	
30 Apr 52		Depth 45'	Wind NW-2	
			Air 31.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.27	0.08	146	0.41
5	15.20	0.08	154	0.46
10	15.13	0.08	062	0.41
15	15.15	0.08	084	0.54
20	15.11	0.08	104	0.61
25	15.09	0.08	102	0.49
30	14.99	0.08	100	0.71
35	15.02	0.08	116	0.61
40	14.91	0.06	146	0.46

CK-30		1800 EST	Weather 00	
30 Apr 52		Depth 40'	Wind N-1	
			Air 33.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.02	0.07	--	0.00
5	15.03	0.07	--	0.00
10	15.02	0.07	093	0.11
15	15.02	0.07	093	0.14
20	15.01	0.07	088	0.16
25	14.98	0.07	092	0.18
30	14.97	0.07	114	0.16
35	14.98	0.07	113	0.16
40	14.96	0.06	112	0.15

CK-30 30 Apr 52		1905 EST Depth 44'	Weather 00 Wind - Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.34	0.10	--	0.00
5	15.34	0.10	--	0.00
10	15.28	0.09	--	0.00
15	15.31	0.10	--	0.00
20	15.35	0.10	--	0.00
25	15.33	0.10	--	0.00
30	15.21	0.09	--	0.00
35	15.06	0.07	--	0.00
40	15.04	0.07	--	0.00

CK-30 30 Apr 52		2106 EST Depth 37'	Weather 00 Wind - Air 12.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.21	0.08	299	0.28
5	15.19	0.08	310	0.32
10	15.20	0.08	305	0.24
15	15.16	0.08	304	0.26
20	15.14	0.08	303	0.28
25	15.14	0.08	303	0.30
30	15.07	0.08	302	0.31
35	15.02	0.07	301	0.31
40	--	--	301	0.31

CK-30 30 Apr 52		2000 EST Depth 44'	Weather 00 Wind - Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.30	0.10	299	0.33
5	15.30	0.09	307	0.32
10	15.31	0.10	309	0.28
15	15.31	0.10	312	0.31
20	15.33	0.10	313	0.28
25	15.33	0.10	300	0.28
30	15.32	0.10	291	0.34
35	15.33	0.10	291	0.31
40	15.33	0.10	292	0.31

CK-30 30 Apr 52		2200 EST Depth 48'	Weather 00 Wind - Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.21	0.09	285	0.21
5	15.21	0.09	296	0.23
10	15.21	0.09	300	0.25
15	15.21	0.09	307	0.23
20	15.20	0.08	302	0.25
25	15.20	0.08	300	0.25
30	15.19	0.08	290	0.25
35	15.19	0.08	286	0.24
40	15.19	0.08	291	0.22

CK-30		2300 EST	Weather 00	
30 Apr 52		Depth 45'	Wind NE-2	
			Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.20	0.08	193	0.12
5	--	0.08	197	0.11
10	--	0.08	--	0.00
15	--	0.08	--	0.00
20	--	0.08	--	0.00
25	--	0.08	--	0.00
30	--	0.08	--	0.00
35	15.21	0.08	--	0.00
40	15.21	0.08	--	0.00
45	15.22	0.08	--	--

CK-30		0105 EST	Weather 00	
1 May 52		Depth 45'	Wind NE-2	
			Air 13.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.97	0.08	117	0.71
5	14.99	0.08	112	0.68
10	14.99	0.08	112	0.71
15	14.99	0.08	120	0.65
20	14.99	0.08	120	0.54
25	14.99	0.08	117	0.58
30	14.99	0.08	112	0.54
35	14.99	0.08	112	0.58
40	14.97	0.08	112	0.54

CK-30		0000 EST	Weather 00	
1 May 52		Depth 45'	Wind NE-2	
			Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.11	0.08	154	0.19
5	15.15	0.08	119	0.28
10	15.15	0.08	119	0.28
15	15.15	0.08	119	0.30
20	15.15	0.08	119	0.30
25	15.15	0.08	115	0.29
30	15.19	0.08	116	0.30
35	15.19	0.08	116	0.31
40	15.11	0.08	117	0.31

CK-30		0205 EST	Weather 00	
1 May 52		Depth 45'	Wind NE-2	
			Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.95	0.08	105	0.77
5	14.97	0.08	--	--
10	14.96	0.08	105	0.71
15	14.92	0.08	--	--
20	14.91	0.08	110	0.71
25	14.90	0.08	--	--
30	14.88	0.08	104	0.61
35	14.87	0.08	--	--
40	14.87	0.08	103	0.54

CK-30 1 May 52		0305 EST Depth 45'	Weather 00 Wind NE-2 Air 11.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.62	0.06	124	0.71
5	14.66	0.06	122	0.61
10	14.62	0.06	116	0.61
15	14.66	0.06	--	--
20	14.66	0.06	127	0.85
25	14.66	0.06	--	--
30	14.66	0.06	129	0.74
35	14.65	0.06	--	--
40	14.65	0.06	127	0.74

CK-30 1 May 52		0500 EST Depth 45'	Weather 00 Wind - Air 8.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.44	0.06	--	0.00
5	14.42	0.06	--	0.00
10	14.30	0.05	--	0.00
15	14.24	0.05	--	0.00
20	14.26	0.05	--	0.00
25	14.24	0.05	--	0.00
30	14.22	0.05	116	0.41
35	14.20	0.05	107	0.46
40	14.22	0.05	112	0.41

CK-30 1 May 52		0405 EST Depth 45'	Weather 00 Wind NE-2 Air 10.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.52	0.06	102	0.46
5	14.56	0.06	110	0.41
10	14.50	0.06	115	0.41
15	14.46	0.06	116	0.46
20	14.45	0.06	116	0.49
25	14.65	0.06	104	0.49
30	14.50	0.06	102	0.49
35	14.56	0.06	114	0.46
40	14.46	0.06	117	0.46

CK-30 1 May 52		0600 EST Depth 45'	Weather 00 Wind - Air 12.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	14.40	0.06	--	0.00
5	14.40	0.06	--	0.00
10	14.40	0.06	--	0.00
15	14.37	0.06	--	0.00
20	14.37	0.06	--	0.00
25	14.37	0.06	--	0.00
30	14.34	0.06	--	0.00
35	14.31	0.06	--	0.00
40	14.24	0.06	--	0.00

CK-30 1 May 52		0700 EST Depth 44'		Weather 00 Wind 0 Air 17.8°C	
Depth (ft.)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.36	0.06	293	0.54	
5	14.30	0.06	295	0.54	
10	14.37	0.06	304	0.54	
15	14.34	0.06	302	0.54	
20	14.30	0.06	306	0.49	
25	14.26	0.06	307	0.46	
30	14.26	0.06	304	0.46	
35	14.27	0.06	291	0.54	
40	14.29	0.06	291	0.49	

CK-30		1000 EST	Weather 00	
1 May 52		Depth 32'	Wind NE-1	
			Air 17.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.15	0.12	236	0.54
5	15.15	0.12	285	0.61
10	15.15	0.12	333	0.58
15	15.14	0.12	332	0.58
20	15.13	0.12	317	0.46
25	15.12	0.13	337	0.58
30	15.12	0.14	331	0.58

CK-30 1 May 52		0800 EST Depth 32'		Weather 00 Wind NW-1 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.67	0.06	300	0.74	
5	14.70	0.06	301	0.71	
10	14.66	0.07	317	0.80	
15	14.67	0.07	313	0.77	
20	14.69	0.07	315	0.82	
25	14.70	0.07	--	--	
30	14.70	0.07	--	--	

CK-30 1 May 52		1100 EST Depth 36'	Weather 00 Wind NE-1 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	15.33	0.15	308	0.41
5	15.33	0.15	--	0.00
10	15.33	0.15	--	0.00
15	15.29	0.17	--	0.00
20	15.25	0.19	002	0.46
25	15.29	0.21	357	0.41
30	15.27	0.21	--	0.00
35	15.27	0.21	--	--

CK-30 1 May 52		0900 EST Depth 34'		Weather 00 Wind N-1 Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	14.99	0.08	235	0.97	
5	14.99	0.08	287	1.01	
10	14.97	0.08	327	0.86	
15	14.95	0.08	332	0.86	
20	14.91	0.08	325	0.81	
25	14.91	0.08	316	0.86	
30	14.95	0.08	304	0.81	

Section B
Chemical Data

Station	Depth (ft)	Date Time (EST)	O ₂ (ml/L)	pH	Alk. (mg at/L)	Chloro. (μ g/L)	PO ₄ (μ g at/L)	Turbidity	
								400m μ	600m μ 80m
CK-6	0	28 Apr 52	6.00	7.97	1.44	6.85	0.13	0.082	0.062
	10	1250	5.30	7.94	1.17	7.85	0.15	0.075	0.061
	20	1315	4.39	7.77	1.16	9.59	0.11	0.071	0.081
	30	1335	3.33	7.39	1.02	9.90	0.14	0.098	0.096
	45	1400	2.97	7.40	1.41	7.55	0.14	0.195	0.160
CK-20	0	29 Apr 52	5.71	7.43	1.02	1.23	0.25	0.267	0.267
	10	1250	5.46	7.45	0.32	3.09	0.29	0.473	0.224
	20	1315	5.46	7.32	0.77	--	0.20	0.353	0.169
	30	1340	4.59	7.43	0.86	2.20	0.20	0.267	0.135
	41	1400	4.66	7.49	0.83	1.42	0.24	0.265	0.155
CK-30	0	30 Apr 52	4.79	7.17	1.00	3.63	0.73	1.396	0.640
	10	1330	4.77	7.06	0.94	0	0.75	1.498	0.682
	20	1355	4.99	6.93	0.94	3.84	0.83	1.631	0.788
	30	1415	4.80	7.00	0.83	3.92	0.88	2.009	0.045
	40	1440	4.93	7.00	0.90	3.67	0.94	1.857	1.036

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